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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,314

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112 South West Street
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EXAMINER

LONG, ROBERT FRANKLIN

ART UNIT

PAPER NUMBER

3721

MAIL DATE

DELIVERY MODE

04/12/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,314	Applicant(s) LIMMA ET AL.	
	Examiner Robert F. Long	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-43, 45-47, 49-56 and 58-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-43, 45-47, 49-56, and 58-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The amendment filed 03/21/11 has been entered. Claims 33-43, 45-47, 49-56, and 58-64 are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 33-43, 45-47, 49-56, and 58-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mault et al. (US 20030065257 A1) in view of the parent application Mault et al. (US 6513532 B2) in view of Subbs et al. (US 6736759 B1) in view of Shea et al. (US 7056265 B1) and further in view of Root et al. (US 6013007 A).**

Regarding claims 33, 47, 56, and 64, Mault et al. teaches a measurement device (90), system (84) and a method for transmitting measured sports activity

information (**communication of user activity to body activity monitor 124**) and providing at least one individual with feedback based on the measured sports activity information, (display **112**) wherein the method comprises:

measuring sports activity information with a measurement device comprising a plurality of measuring elements configured to measure a plurality of quantities relating to a sports activity; (**sensors, 138/140, monitor 120, position discriminator 122, and monitor 124, [0047], fig. 6**)

connected to a processing unit, (**CPU 88 fig. 4**); transmitter (**82**) transmitting, with the measurement device,

a memory (**92**) configured to store at least one definition, based on which a predefined set of pieces of sports activity information is selected from the received sports activity information;

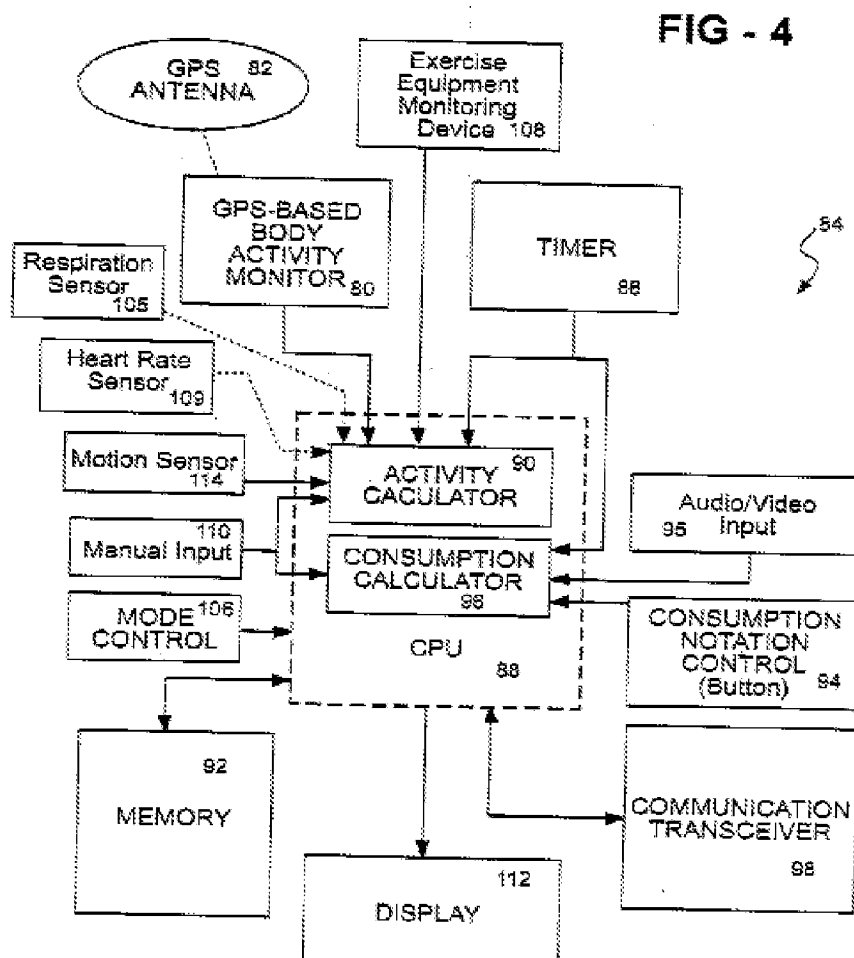
a second memory (**86, [0039]**) configured to store at least one definition based on which a predefined set of pieces of sports activity information is selected from the received sports activity information, and a second processor (**90**), configured to select the predefined set of pieces of sports activity information from the received sports activity information based on the at least one definition, which is defined based on the sport in question, stored on the second memory, [0038-0045]);

wherein the measured sports activity information to a receiving device via a short-range wireless radio communication link during the activity and wherein the receiving device provides different user interfaces in different sports or activities, according to the use or purpose of the information for the different sports or activities

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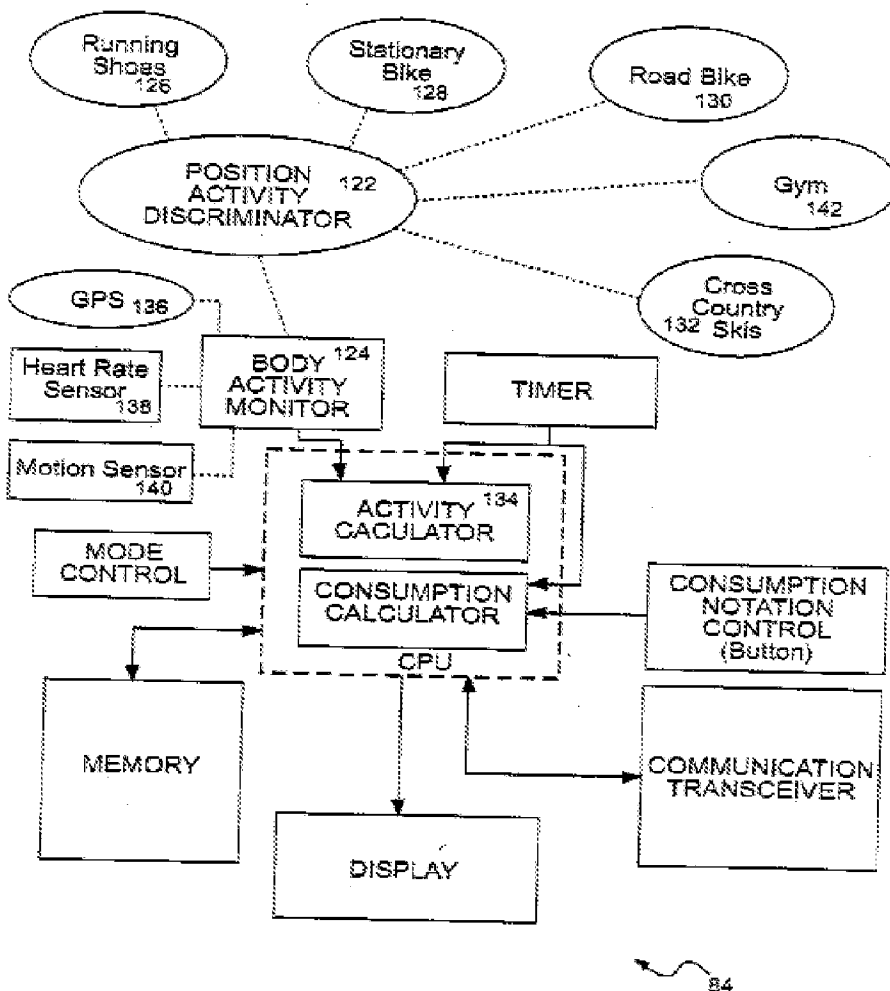
(98 [0039]); (bike, ski, run, and etc. [0047]) which is subject to a selection by a receiving device based on the sport in question, to at least one receiving device via a short-range wireless radio communication link during the sports activity according to a communication protocol, (communication transceiver 98 links data to a local computing device [0039]); at least one feedback device (wristband/watch 14, PDA 24, graphical output 110 – figure 5) configured to provide at least one individual with feedback on a user interface display based on the selected sports activity information, [0037-0040].

See figure 4 below showing CPU 88 analyzing monitored body activity -



Mault shows different sports or the sport in question to be analyzed fig 6—

FIG - 6



Mault also teaches having a GPS, [82], pulse coil to measure heart rate, (sensor 78, [0036]), measuring time, (see time out put graph fig. 5), wherein the processor is configured to calculate at least one additional piece of sports activity information based on the measured sports activity information (**consumption calculator 98**); and the transmitter (**input/output port 106 transmits data**) is configured to transmit the calculated sports activity information via a communication link, (**activity sport data is**

transferred from activity calculator (90 or 134) to a local computing device [0033, 0039-0044]).

Mault et al. fails to teach selecting, based on the sport in question, from the received sports activity information a predefined set of pieces of sports activity information with the receiving device and having a thermometer, barometer, and altitude and wherein, in the case of sailing, the user interface display comprises activity-specific information selected from at least one of a group consisting of longitude and latitude, air pressure, heading, speed, temperature and graphical information.

However, in Mault's parent application **Mault et al. (US 6513532 B2)**, Mault et al. uses equations to determine the relationship between activity levels and calorie expenditure, explains that activity level can be identified using charting signal output, and that heart rate correlates with body activity and expenditure (column 17, lines 32-43). In column 19, lines 33-35, Mault teaches determines calories expended via activity levels by compiling measurements from accelerometers, heart rate monitors, and processing the signals into different activity levels (running vs. walking). Using the activity levels an estimate of calorie expenditure is determined. Mault's computer system (monitoring device 10/wristband 14 with display 16) sums calorie expenditure data with calorie consumption data, and outputs caloric balance for a given time period. Caloric expenditure data is calculated by the equation $TEE = AEE + REE$, where total energy expenditure (TEE) is the sum of resting energy expenditure (REE, a product of resting metabolic rate and the time-period of interest) and activity related energy expenditure (AEE), see column 1, line 67 and column 2 lines 1-2; see column 17, lines

15-54, and column 19, lines 4-7, see also column 19, lines 7-36 and incorporation by reference of US application 09/685,625 now US patent number 6,478,736 B1 figure 8B).

Given the teachings of Mault's parent application (**US 6513532 B2**), of calculating resting and activity energy expenditure as well as signals into different activity levels (running vs. walking), it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mault's continued application (**US 20030065257 A1**) in view of the parent (**US 6513532 B2**), with having the calculation of energy expenditure to include a predefined set of pieces of sports activity information with the receiving device in order to determine caloric balance for a given period during a particular activity and/or predefined set of pieces of sports. It also would have been obvious to one skilled in the art at the time the invention was made to modify Mault's PDA measuring device with having a thermometer, barometer, and altitude as an additional analysis of measurement and feedback to the heart rate, calorie consumption with the GPS measuring for having a more accurate performance calculation and/or additional feedback output to be displayed.

Stubbs et al. teaches using an exercise monitoring system in case of sailing, with a user interface display (52) comprises activity-specific information (status sport identified via 57/58) selected from at least one of a group consisting of longitude and latitude, air pressure, heading, speed, temperature and graphical information (figure 10 shows oxygen levels, time, speed, graphical information, longitude/latitude GPS device 30 figure 5 and col. 22, lines 26-67, col. 23, lines 1-67, col. 14, lines 1-5, figures 1-10).

Stubbs et al. states: "location data acquired by the GPS device may be used to compute and display the subject's velocity, pace and/or distance traveled. Such information is particularly useful when the subject is performing a physical activity wherein performance may be measured in terms of speed, time and/or distance, such as walking, running, swimming, wheel chairing (e.g., wheel chair racing), bicycling, skating (e.g., speed skating on any surface), skiing (e.g., cross-country skiing), or boating (e.g., rowing, sailing, kayaking, or canoeing), or climbing (e.g., rock climbing)", (col. 23, lines 54-65).

Shea teaches using a exercise monitoring network (100, col. 5, lines 21-67) in case of rowing in a health club or other locations, with a user interface display (206 figure 7) comprises activity-specific information (figures 10-16 show different activity information) selected from at least one of a group consisting of longitude and latitude, heading, (figure 13 shows coordinates (latitude/longitude) and heading direction shown below) speed (figure 6), temperature and graphical information and having a thermometer, barometer,

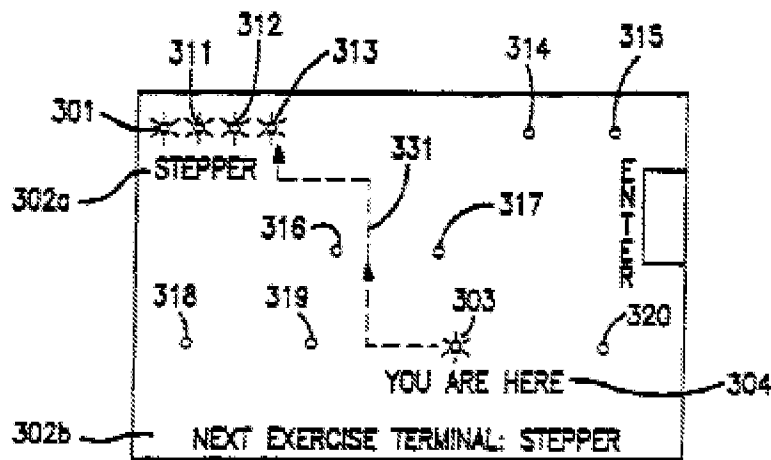


FIG. 13A

Shea states: “Other devices for supplying physiological data such as body temperature, blood pressure, heart rate and the like may also be incorporated into exercise terminal network 100 so that such data can be used in the selection of exercise data for an exerciser” (col. 5, lines 44-48) and “Suitable input devices include, but are not limited to, a scale, a blood pressure device, a pulse rate monitor, a thermometer, and the like” (col. 11 lines 58-65).

Root teaches a GPS exercise/performance monitor device (101) and teaches that GPS monitoring devices are known in boating and fishing activities with geographic location latitude/longitude and heading directions (col. 1, lines 7-57). Root also teaches having a thermometer (610) and barometer (610) sensors with the GPS module (604) with monitor (101) for performance feedback output (col. 5, lines 36-65).

Root states: “Hand held GPS devices are presently on the market for boating, fishing, and hunting. These devices are generally limited to navigation uses only. A

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visual display is used to show current geographic location, destinations, and navigation instructions for travelling to a selected location” (col. 1, lines 37-45).

Therefore, as discussed above, measuring and displaying one's activity while exercising and performing a sport activity is a standard well known convention of fitness equipment and navigation equipment is also conventional, as evidenced and taught by Stubbs, Shea, and Root, and the similar GPS system of Mault et al (which tells location and altitude) would motivate one skilled in the art with having a thermometer, barometer, and altitude for the additional feedback output analysis during sport activities such as hiking, sailing/rowing, water skiing, boating, and/or fishing as taught and evidenced by Stubbs, Shea, and Root. Moreover, since Shea also teaches forming a network with more than one device (as suggested in Mault et al. [0031-0032]) for obtaining more comprehensive feedback data of a user performing different sport activities; this further suggestion would motivate one skilled in the art to look to Stubbs and/or Root for having the desired physiological output data and Root teaches it is know to use monitoring devices/methods with boating activities.

Regarding claims 34-43, 45-46, 49, 51-55, and 58-63, Mault et al. modified by Stubbs modified by Shea and further modified by Root teaches the invention as substantially claimed. See above.

Mault et al. teaches a measurement device (**90**), system (84) can be carried (**wristband/watch 14, PDA 24, can be carried**) and a method for transmitting measured sports activity information (**bike, ski, run, and** etc. [0047) and providing at least one individual with feedback based on the measured sports activity information,

(**feedback display 100, fig. 5**) with having feedback indicators to send and receive data (**sensors, 138/140, monitor 120, position discriminator 122, and monitor 124, [0047], fig. 6**); calculating sport activity parameters, (**activity calculations [0035]**), communication protocol (**communication transceiver 98 links data to a local computing device [0039]**) memory storage, (**86/92**) audio voice [0034, 0058], GPS, [82], pulse coil to measure heart rate, (sensor 78, [0036]), measuring time, (see time out put graph fig. 5), wherein the processor is configured to calculate at least one additional piece of sports activity information based on the measured sports activity information (**consumption calculator 98**); and the transmitter (**input/output port 106 transmits data**) is configured to transmit the calculated sports activity information via a communication link, (**activity sport data is transferred from activity calculator (90 or 134) to a local computing device [0033, 0039-0044]**).

Mault (**US 20030065257 A1**) continued application in view of Mault's parent application (**US 6513532 B2**) fails to teach having a thermometer, barometer, and specifically measuring altitude.

It would have been obvious to one skilled in the art at the time the invention was made to modify Mault's continued application (**US 20030065257 A1**) in view of Mault's parent application (**US 6513532 B2**) with having a thermometer, barometer, and altitude as an additional analysis of measurement and feedback to the heart rate, calorie consumption with the GPS measuring as taught and evidenced by Stubbs, Shea, and Root for having a more accurate performance calculation and/or additional feedback output to be displayed. Measuring and displaying one's activity while exercising and

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performing a sport activity is a standard well known convention of fitness equipment and navigation equipment is also conventional and the GPS system of Mault et al (which tells location and altitude) would motivate one skilled in the art with having a thermometer, barometer, and altitude for the additional feedback output analysis during water sport activities such as fishing, boating, water skiing as well as sailing as taught and evidenced by Stubbs, Shea, and Root.

Response to Arguments

Applicant's arguments with respect to claims 33-43, 45-47, 49-56, and 58-64 have been considered but are moot in view of the new ground(s) of rejection of newly cited art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert F. Long whose telephone number is (571)270-3864. The examiner can normally be reached on Monday-Friday (8:30-6:30) with every other Monday and every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert F Long/
Examiner, Art Unit 3721

/Rinaldi I Rada/
Supervisory Patent Examiner, Art Unit 3721